Small Business Innovation Research/Small Business Tech Transfer

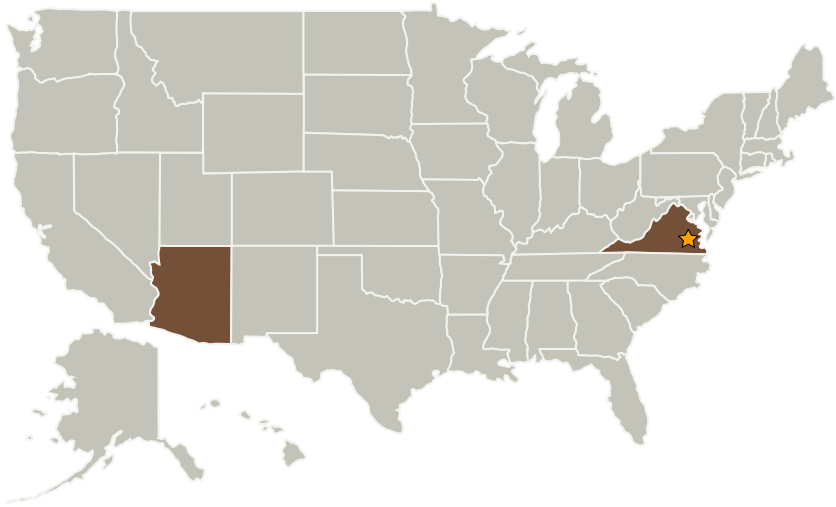
Ultra-Lightweight Optical Components for FTS Instruments, Phase I

Completed Technology Project (2004 - 2004)

Project Introduction

NASA is pursuing novel technology for FTS instruments. The use of the conventional actuator technology is limited by the weight of optical components. The innovation of this Phase I lies in the application of composite membrane optics technology to device applications. In particular, ultra-lightweight retroreflectors will be manufactured in Phase I. Phase II will integrate this novel technology with stiff actuators.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Langley Research Center(LaRC)	Lead Organization	NASA Center	Hampton, Virginia
MER Corporation	Supporting Organization	Industry	Tucson, Arizona

Primary U.S. Work Locations	
Arizona	Virginia

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Langley Research Center (LaRC)

Responsible Program:

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Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Witold Kowbel

Technology Areas

Primary:

- TX08 Sensors and Instruments
  - TX08.1 Remote Sensing Instruments/Sensors
    - TX08.1.3 Optical Components